CONSTRUCTION PERMIT
and MINOR SOURCE OPERATING PERMIT
OFFICE OF AIR MANAGEMENT
and CITY of EVANSVILLE
ENVIRONMENTAL PROTECTION AGENCY

Evansville State Hospital
3400 Lincoln Avenue
Evansville, Indiana 47714

(herein known as the Permittee) is hereby authorized to construct and operate subject to the conditions contained herein, the emission units described in Section A (Source Summary) of this permit.

This permit is issued to the above mentioned company under the provisions of 326 IAC 2-1.1, 326 IAC 2-6.1 and 40 CFR 52.780, with conditions listed on the attached pages.

Operation Permit No.: MSOP 163-11909-00005	
Issued by: Paul Dubenetzky, Branch Chief Office of Air Management	Issuance Date:

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SECTION A SOURCE SUMMARY

This permit is based on information requested by the Indiana Department of Environmental Management (IDEM), Office of Air Management (OAM) and Evansville Environmental Protection Agency. The information describing the source contained in conditions A.1 through A.3 is descriptive information and does not constitute enforceable conditions. However, the Permittee should be aware that a physical change or a change in the method of operation that may render this descriptive information obsolete or inaccurate may trigger requirements for the Permittee to obtain additional permits or seek modification of this permit pursuant to 326 IAC 2, or change other applicable requirements presented in the permit application.

A.1 General Information [326 IAC 2-5.1-3(c)] [326 IAC 2-6.1-4(a)]

The Permittee owns and operates a hospital.

Authorized Individual:	Mark Dearing
Source Address:	3400 Lincoln Avenue, Evansville, Indiana 47714
Mailing Address:	3400 Lincoln Avenue, Evansville, Indiana 47714
Phone Number:	812-473-2377
SIC Code:	8062
County Location:	Vanderburgh
County Status:	Maintenance for Ozone Attainment area for all other criteria pollutants
Source Status:	Minor Source Operating Permit Minor Source, under PSD; Minor Source, Section 112 of the Clean Air Act

A.2 Emissions Units and Pollution Control Equipment Summary

This stationary source is approved to construct and operate the following emissions units and pollution control devices:

(a) One (1) #2 fuel oil/natural gas-fired boiler, identified as BR#3, constructed in 1972, rated at 21.0 million British thermal units per hour, and exhausting to stack SV#2.

(b) One (1) #2 fuel oil/natural gas-fired boiler, identified as BR#2,rated at 20.9 million British thermal units per hour, and exhausting to stack SV#2.

(c) One (1) storage tank, known as T1,capacity: 10,000 gallons.

(d) One (1) storage tank, known as T2, capacity: 500 gallons.

SECTION B GENERAL CONSTRUCTION CONDITIONS

THIS SECTION OF THE PERMIT IS BEING ISSUED UNDER THE PROVISIONS OF 326 IAC 2-1.1 AND 40 CFR 52.780, WITH CONDITIONS LISTED BELOW.

B.1 Permit No Defense [IC 13]

This permit to construct does not relieve the Permittee of the responsibility to comply with the provisions of the Indiana Environmental Management Law (IC 13-11 through 13-20; 13-22 through 13-25; and 13-30), the Air Pollution Control Law (IC 13-17) and the rules promulgated thereunder, as well as other applicable local, state, and federal requirements.

B.2 Definitions

Terms in this permit shall have the definition assigned to such terms in the referenced regulation. In the absence of definitions in the referenced regulation, any applicable definitions found in IC 13-11, 326 IAC 1-2, and 326 IAC 2-1.1-1 shall prevail.

B.3 Effective Date of the Permit [IC 13-15-5-3]

Pursuant to IC 13-15-5-3, this permit becomes effective upon its issuance.

B.4 Revocation of Permits [326 IAC 2-1.1-9(5)]

Pursuant to 326 IAC 2-1.1-9(5)(Revocation of Permits), the Commissioner may revoke this permit if construction is not commenced within eighteen (18) months after receipt of this approval or if construction is suspended for a continuous period of one (1) year or more.

B.5 Modification to Permit [326 IAC 2]

Notwithstanding the Section B condition entitled “Minor Source Operating Permit”, all requirements and conditions of this construction permit shall remain in effect unless modified in a manner consistent with procedures established for modifications of construction permits pursuant to 326 IAC 2 (Permit Review Rules).

B.6 Minor Source Operating Permit [326 IAC 2-6.1]

This document shall also become a minor source operating permit pursuant to 326 IAC 2-6.1 when, prior to start of operation, the following requirements are met:

(a) The attached Affidavit of Construction shall be submitted to the Office of Air Management (OAM), Permit Administration & Development Section.

(1) If the Affidavit of Construction verifies that the facilities covered in this Construction Permit were constructed as proposed in the application, then the facilities may begin operating on the date the Affidavit of Construction is postmarked or hand delivered to IDEM.

(2) If the Affidavit of Construction does not verify that the facilities covered in this Construction Permit were constructed as proposed in the application, then the Permittee shall receive an Operation Permit Validation Letter from the Chief of the Permit Administration & Development Section prior to beginning operation of the facilities.

(b) If construction is completed in phases; i.e., the entire construction is not done continuously, a separate affidavit must be submitted for each phase of construction. Any permit conditions associated with operation start up dates such as stack testing for New Source Performance Standards (NSPS) shall be applicable to each individual phase.

(c) Upon receipt of the Operation Permit Validation Letter from the Chief of the Permit Administration & Development Section, the Permittee shall attach it to this document.

(d) The operation permit will be subject to annual operating permit fees pursuant to 326 IAC 2-1.1-7(Fees).

(e) Pursuant to 326 IAC 2-6.1-7, the Permittee shall apply for an operation permit renewal at least ninety (90) days prior to the expiration date established in the validation letter. If IDEM, OAM, upon receiving a timely and complete permit application, fails to issue or deny the permit renewal prior to the expiration date of this permit, this existing permit shall not expire and all terms and conditions shall continue in effect until the renewal permit has been issued or denied. The operation permit issued shall contain as a minimum the conditions in Section C and Section D of this permit.

(f) This Minor Source Operating Permit will supercede Part 70 Operating Permit T 163-7724-00005 issued on November 6, 1998.

(g) The two (2) coal-fired boilers, known as BR#1and BR#2, shall be removed upon the start up of the new #2 fuel oil/natural gas-fired boiler BR#2.

B.7 Local Agency Requirement

(a) Pursuant to 326 IAC 2-6.1 (Minor Source Operating Permit), this document shall also become minor source operating permit and local operating permit, when prior to start of operation (including testing and de-bugging), the following requirements are met:

(1) The attached Affidavit of Construction shall be submitted to the Evansville Environmental Protection Agency (EPA) and the Office of Air Management (OAM), Permit Administration & Development Section.

(2) The Evansville EPA will verify that the facilities were constructed as proposed.

(3) Pursuant to Municipal Code of Evansville (MCE) 3.30.18.221 (A)(Permits), a local operating permit must be obtained from Evansville EPA prior to start of operation. The local operating permit process will begin upon:

(i) Receipt of the Affidavit of Construction by Evansville EPA, and

(ii) Payment to Evansville EPA of a non-refundable $100.00, for the local operating permit issuance fee.

(b) Operations may only begin following the receipt of a valid local operating permit, issued by Evansville EPA.

(c) Pursuant to MCE 3.30.18.221(D), local operating permits shall be issued within a reasonable period of time. Thirty (30) days is considered reasonable in most cases.

(1) If construction is completed in phases; i.e., the entire construction is not done continuously, a separate Affidavit of Construction must be submitted for each phase of construction and an application for a local operating permit for each phase made to the Evansville EPA. Any permit conditions associated with operation start up dates such as stack testing for New Source Performance Standards (NSPS) shall be applicable to each individual phase.

(2) The local operating permit issued by the Evansville EPA will contain at a minimum the conditions in Section C and Section D of this permit.

B.8 NSPS Reporting Requirement

Pursuant to the New Source Performance Standards (NSPS), Part 60.40c, Subpart Dc, the source owner/operator is hereby advised of the requirement to report the following at the appropriate times:

(a) Commencement of construction date of BR#2 (no later than 30 days after such date);

(b) Actual start-up date of BR#2 (within 15 days after such date); and

(c) Date of performance testing of BR#2 (at least 30 days prior to such date), when required by a condition elsewhere in this permit.

Reports are to be sent to:

Indiana Department of Environmental Management
Compliance Data Section, Office of Air Management
100 North Senate Avenue, P.O. Box 6015
Indianapolis, IN 46206-6015; and

Evansville Environmental Protection Agency
Room 250, Federal Building
101 N.W. Martin Luther King, Jr. Boulevard
Evansville, Indiana 47708-9998

The application and enforcement of these standards have been delegated to the IDEM OAM. The requirements of 40 CFR Part 60 are also federally enforceable.

SECTION C SOURCE OPERATION CONDITIONS

Entire Source

C.1 PSD Minor Source Status [326 IAC 2-2] [40 CFR 52.21]

(a) The total source potential to emit of SO_2 is less than 250 tons per year. Therefore the requirements of 326 IAC 2-2 (Prevention of Significant Deterioration) and 40 CFR 52.21 will not apply.

(b) Any change or modification which may increase potential to emit to 250 tons per year from this source, shall cause this source to be considered a major source under PSD, 326 IAC 2-2 and 40 CFR 52.21, and shall require approval from IDEM, OAM prior to making the change.

C.2 Preventive Maintenance Plan [326 IAC 1-6-3]

(a) If required by specific condition(s) in Section D of this permit, the Permittee shall prepare and maintain Preventive Maintenance Plans (PMP) after issuance of this permit, including the following information on each emissions unit:

(1) Identification of the individual(s) responsible for inspecting, maintaining, and repairing emission control devices;

(2) A description of the items or conditions that will be inspected and the inspection schedule for said items or conditions;

(3) Identification and quantification of the replacement parts that will be maintained in inventory for quick replacement.

(b) The Permittee shall implement the Preventive Maintenance Plans as necessary to ensure that failure to implement the Preventive Maintenance Plan does not cause or contribute to a violation of any limitation on emissions or potential to emit.

(c) PMP's shall be submitted to IDEM, OAM, and Evansville EPA, upon request and shall be subject to review and approval by IDEM, OAM and Evansville EPA. IDEM, OAM, and Evansville EPA may require the Permittee to revise its Preventive Maintenance Plan whenever lack of proper maintenance causes or contributes to any violation.

C.3 Permit Revision [326 IAC 2-5.1-3(e)(3)] [326 IAC 2-6.1-6]

(a) The Permittee must comply with the requirements of 326 IAC 2-6.1-6 whenever the Permittee seeks to amend or modify this permit.

(b) Any application requesting an amendment or modification of this permit shall be submitted to:

Indiana Department of Environmental Management
Permits Branch, Office of Air Management
100 North Senate Avenue, P.O. Box 6015
Indianapolis, Indiana 46206-6015; and

Evansville Environmental Protection Agency
Room 250, Federal Building
101 N.W. Martin Luther King, Jr. Boulevard
Evansville, Indiana 47708-9998

Any such application should be certified by the "authorized individual" as defined by 326 IAC 2-1.1-1.

(c) The Permittee shall notify the OAM within thirty (30) calendar days of implementing a notice-only change. [326 IAC 2-6.1-6(d)]

C.4 Inspection and Entry [326 IAC 2-5.1-3(e)(4)(B)] [326 IAC 2-6.1-5(a)(4)]

Upon presentation of proper identification cards, credentials, and other documents as may be required by law, and subject to the Permittee's right under all applicable laws and regulations to assert that the information collected by the agency is confidential and entitled to be treated as such, the Permittee shall allow IDEM, OAM, Evansville EPA, U.S. EPA, or an authorized representative to perform the following:

(a) Enter upon the Permittee's premises where a source is located, or emissions related activity is conducted, or where records must be kept under the conditions of this permit;

(b) Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit;

(c) Inspect, at reasonable times, any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under this permit;

(d) Sample or monitor, at reasonable times, substances or parameters for the purpose of assuring compliance with this permit or applicable requirements; and

(e) Utilize any photographic, recording, testing, monitoring, or other equipment for the purpose of assuring compliance with this permit or applicable requirements.

C.5 Transfer of Ownership or Operation [326 IAC 2-6.1-6(d)(3)]

Pursuant to [326 IAC 2-6.1-6(d)(3)]:

(a) In the event that ownership of this source is changed, the Permittee shall notify IDEM, OAM, Evansville EPA Permits Branch, within thirty (30) days of the change.

(b) The written notification shall be sufficient to transfer the permit to the new owner by an notice-only change pursuant to 326 IAC 2-6.1-6(d)(3).

(c) IDEM, OAM, Evansville EPA shall issue a revised permit.

The notification which shall be submitted by the Permittee does require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1.

C.6 Permit Revocation [326 IAC 2-1-9]

Pursuant to 326 IAC 2-1-9(a)(Revocation of Permits), this permit to construct and operate may be revoked for any of the following causes:

(a) Violation of any conditions of this permit.

(b) Failure to disclose all the relevant facts, or misrepresentation in obtaining this permit.

(c) Changes in regulatory requirements that mandate either a temporary or permanent reduction of discharge of contaminants. However, the amendment of appropriate sections of this permit shall not require revocation of this permit.

(d) Noncompliance with orders issued pursuant to 326 IAC 1-5 (Episode Alert Levels) to reduce emissions during an air pollution episode.

(e) For any cause which establishes in the judgment of IDEM and Evansville EPA, the fact that continuance of this permit is not consistent with purposes of this article.

C.7 Opacity [326 IAC 5-1]

Pursuant to 326 IAC 5-1-2 (Opacity Limitations), except as provided in 326 IAC 5-1-3 (Temporary alternative opacity limitations), opacity shall meet the following, unless otherwise stated in this permit:

(a) Opacity shall not exceed an average of thirty percent (30%) in any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.

(b) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of fifteen (15) minutes (sixty (60) readings) as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor in a six (6) hour period.

C.8 Fugitive Dust Emissions [326 IAC 6-4]

The Permittee shall not allow fugitive dust to escape beyond the property line or boundaries of the property, right-of-way, or easement on which the source is located, in a manner that would violate 326 IAC 6-4 (Fugitive Dust Emissions). 326 IAC 6-4-2(4) is not federally enforceable.

C.9 Stack Height [326 IAC 1-7]

The Permittee shall comply with the applicable provisions of 326 IAC 1-7 (Stack Height Provisions), for all exhaust stacks through which a potential (before controls) of twenty-five (25) tons per year or more of particulate matter or sulfur dioxide is emitted by using good engineering practices (GEP) pursuant to 326 IAC 1-7-3.

Testing Requirements

C.10 Performance Testing [326 IAC 3-6] [326 IAC 2-1.1-11]

(a) Compliance testing on new emissions units shall be conducted within 60 days after achieving maximum production rate, but no later than180 days after initial start-up, if specified in Section D of this approval. All testing shall be performed according to the provisions of 326 IAC 3-6 (Source Sampling Procedures), except as provided elsewhere in this permit, utilizing any applicable procedures and analysis methods specified in 40 CFR 51, 40 CFR 60, 40 CFR 61, 40 CFR 63, 40 CFR 75, or other procedures approved by IDEM, OAM.

A test protocol, except as provided elsewhere in this permit, shall be submitted to:

Indiana Department of Environmental Management
Compliance Data Section, Office of Air Management
100 North Senate Avenue, P. O. Box 6015
Indianapolis, Indiana 46206-6015; and

Evansville Environmental Protection Agency
Room 250, Federal Building
101 N.W. Martin Luther King, Jr. Boulevard
Evansville, Indiana 47708-9998

no later than thirty-five (35) days prior to the intended test date. The Permittee shall submit a notice of the actual test date to the above address so that it is received at least two weeks prior to the test date.

(b) All test reports must be received by IDEM, OAM, within forty-five (45) days after the completion of the testing. An extension may be granted by the IDEM, OAM, Evansville EPA if the source submits to IDEM, OAM, Evansville EPA a reasonable written explanation within five (5) days prior to the end of the initial forty-five (45) day period.

The documentation submitted by the Permittee does not require certification by the "authorized individual" as defined by 326 IAC 2-1.1-1.

Compliance Monitoring Requirements

C.11 Compliance Monitoring [326 IAC 2-1.1-11]

Compliance with applicable requirements shall be documented as required by this permit. The Permittee shall be responsible for installing any necessary equipment and initiating any required monitoring related to that equipment. All monitoring and record keeping requirements not already legally required shall be implemented when operation begins.

C.12 Monitoring Methods [326 IAC 3]

Any monitoring or testing required by Section D of this permit shall be performed according to the provisions of 326 IAC 3, 40 CFR 60, Appendix A, or other approved methods as specified in this permit.

C.13 Compliance Monitoring Plan - Failure to Take Response Steps [326 IAC 1-6]

(a) The Permittee is required to implement a compliance monitoring plan to ensure that reasonable information is available to evaluate its continuous compliance with applicable requirements. This compliance monitoring plan is comprised of:

(1) This condition;

(2) The Compliance Determination Requirements in Section D of this permit;

(3) The Compliance Monitoring Requirements in Section D of this permit;

(4) The Record Keeping and Reporting Requirements in Section C (Monitoring Data Availability, General Record Keeping Requirements, and General Reporting Requirements) and in Section D of this permit; and

(5) A Compliance Response Plan (CRP) for each compliance monitoring condition of this permit. CRP's shall be submitted to IDEM, OAM, Evansville EPA upon request and shall be subject to review and approval by IDEM, OAM, Evansville EPA. The CRP shall be prepared within ninety (90) days after issuance of this permit by the Permittee and maintained on site, and is comprised of:

(A) Response steps that will be implemented in the event that compliance related information indicates that a response step is needed pursuant to

the requirements of Section D of this permit; and

(B) A time schedule for taking such response steps including a schedule for devising additional response steps for situations that may not have been predicted.

(b) For each compliance monitoring condition of this permit, appropriate response steps shall be taken when indicated by the provisions of that compliance monitoring condition. Failure to perform the actions detailed in the compliance monitoring conditions or failure to take the response steps within the time prescribed in the Compliance Response Plan, shall constitute a violation of the permit unless taking the response steps set forth in the Compliance Response Plan would be unreasonable.

(c) After investigating the reason for the excursion, the Permittee is excused from taking further response steps for any of the following reasons:

(1) The monitoring equipment malfunctioned, giving a false reading. This shall be an excuse from taking further response steps providing that prompt action was taken to correct the monitoring equipment.

(2) The Permittee has determined that the compliance monitoring parameters established in the permit conditions are technically inappropriate, has previously submitted a request for an administrative amendment to the permit, and such request has not been denied or;

(3) An automatic measurement was taken when the process was not operating; or

(4) The process has already returned to operating within “normal” parameters and no response steps are required.

(d) Records shall be kept of all instances in which the compliance related information was not met and of all response steps taken.

C.14 Actions Related to Noncompliance Demonstrated by a Stack Test

(a) When the results of a stack test performed in conformance with Section C - Performance Testing, of this permit exceed the level specified in any condition of this permit, the Permittee shall take appropriate corrective actions. The Permittee shall submit a description of these corrective actions to IDEM, OAM, within thirty (30) days of receipt of the test results. The Permittee shall take appropriate action to minimize emissions from the affected emissions unit while the corrective actions are being implemented. IDEM, OAM shall notify the Permittee within thirty (30) days, if the corrective actions taken are deficient. The Permittee shall submit a description of additional corrective actions taken to IDEM, OAM within thirty (30) days of receipt of the notice of deficiency. IDEM, OAM reserves the authority to use enforcement activities to resolve noncompliant stack tests.

(b) A retest to demonstrate compliance shall be performed within one hundred twenty (120) days of receipt of the original test results. Should the Permittee demonstrate to IDEM, OAM that retesting in one-hundred and twenty (120) days is not practicable, IDEM, OAM may extend the retesting deadline. Failure of the second test to demonstrate compliance with the appropriate permit conditions may be grounds for immediate revocation of the permit to operate the affected emissions unit.

The documents submitted pursuant to this condition do not require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1.

Record Keeping and Reporting Requirements

C.15 Malfunctions Report [326 IAC 1-6-2]

Pursuant to 326 IAC 1-6-2 (Records; Notice of Malfunction):

(a) A record of all malfunctions, including startups or shutdowns of any facility or emission control equipment, which result in violations of applicable air pollution control regulations or applicable emission limitations shall be kept and retained for a period of three (3) years and shall be made available to the Indiana Department of Environmental Management (IDEM), Office of Air Management (OAM) or appointed representative upon request.

(b) When a malfunction of any facility or emission control equipment occurs which lasts more than one (1) hour, said condition shall be reported to OAM, using the Malfunction Report Forms (2 pages). Notification shall be made by telephone or facsimile, as soon as practicable, but in no event later than four (4) daytime business hours after the beginning of said occurrence.

(c) Failure to report a malfunction of any emission control equipment shall constitute a violation of 326 IAC 1-6, and any other applicable rules. Information of the scope and expected duration of the malfunction shall be provided, including the items specified in 326 IAC 1-6-2(a) (1) through (6).

(d) Malfunction is defined as any sudden, unavoidable failure of any air pollution control equipment, process, or combustion or process equipment to operate in a normal and usual manner. [326 IAC 1-2-39]

C.16 Annual Emission Statement [326 IAC 2-6]

(a) The Permittee shall submit an annual emission statement certified pursuant to the requirements of 326 IAC 2-6, that must be received by April 15 of each year and must comply with the minimum requirements specified in 326 IAC 2-6-4. The annual emission statement shall meet the following requirements:

(1) Indicate actual emissions of criteria pollutants from the source, in compliance with 326 IAC 2-6 (Emission Reporting);

(2) Indicate actual emissions of other regulated pollutants from the source, for purposes of Part 70 fee assessment.

(b) The annual emission statement covers the twelve (12) consecutive month time period starting December 1 and ending November 30. The annual emission statement must be submitted to:

Indiana Department of Environmental Management
Technical Support and Modeling Section, Office of Air Management
100 North Senate Avenue, P. O. Box 6015
Indianapolis, Indiana 46206-6015; and

Evansville Environmental Protection Agency
Room 250, Federal Building
101 N.W. Martin Luther King, Jr. Boulevard
Evansville, Indiana 47708-9998

(c) The annual emission statement required by this permit shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAM, Evansville EPA on or before the date it is due.

The submittal by the Permittee does require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1.

C.17 Monitoring Data Availability [326 IAC 2-6.1-2] [IC 13-14-1-13]

(a) With the exception of performance tests conducted in accordance with Section C- Performance Testing, all observations, sampling, maintenance procedures, and record keeping, required as a condition of this permit shall be performed at all times the equipment is operating at normal representative conditions.

(b) As an alternative to the observations, sampling, maintenance procedures, and record keeping of subsection (a) above, when the equipment listed in Section D of this permit is not operating, the Permittee shall either record the fact that the equipment is shut down or perform the observations, sampling, maintenance procedures, and record keeping that would otherwise be required by this permit.

(c) If the equipment is operating but abnormal conditions prevail, additional observations and sampling should be taken with a record made of the nature of the abnormality.

(d) If for reasons beyond its control, the operator fails to make required observations, sampling, maintenance procedures, or record keeping, reasons for this must be recorded.

(e) At its discretion, IDEM, Evansville EPA may excuse such failure providing adequate justification is documented and such failures do not exceed five percent (5%) of the operating time in any quarter.

(f) Temporary, unscheduled unavailability of staff qualified to perform the required observations, sampling, maintenance procedures, or record keeping shall be considered a valid reason for failure to perform the requirements stated in (a) above.

C.18 General Record Keeping Requirements [326 IAC 2-6.1-2]

(a) Records of all required monitoring data and support information shall be retained for a period of at least five (5) years from the date of monitoring sample, measurement, report, or application. These records shall be kept at the source location for a minimum of three (3) years and available upon the request of an IDEM, OAM, Evansville EPA representative. The records may be stored elsewhere for the remaining two (2) years as long as they are available upon request. If the Commissioner makes a written request for records to the Permittee, the Permittee shall furnish the records to the Commissioner within a reasonable time.

(b) Records of required monitoring information shall include, where applicable:

(1) The date, place, and time of sampling or measurements;

(2) The dates analyses were performed;

(3) The company or entity performing the analyses;

(4) The analytic techniques or methods used;

(5) The results of such analyses; and

(6) The operating conditions existing at the time of sampling or measurement.

(c) Support information shall include, where applicable:

(1) Copies of all reports required by this permit;

(2) All original strip chart recordings for continuous monitoring instrumentation;

(3) All calibration and maintenance records;

(4) Records of preventive maintenance shall be sufficient to demonstrate that failure to implement the Preventive Maintenance Plan did not cause or contribute to a violation of any limitation on emissions or potential to emit. To be relied upon subsequent to any such violation, these records may include, but are not limited to: work orders, parts inventories, and operator's standard operating procedures. Records of response steps taken shall indicate whether the response steps were performed in accordance with the Compliance Response Plan required by Section C - Compliance Monitoring Plan - Failure to take Response Steps, of this permit, and whether a deviation from a permit condition was reported. All records shall briefly describe what maintenance and response steps were taken and indicate who performed the tasks.

(d) All record keeping requirements not already legally required shall be implemented when operation begins.

C.19 General Reporting Requirements [326 IAC 2-1.1-11] [326 IAC 2-6.1-2] [IC 13-14-1-13]

(a) To affirm that the source has met all the compliance monitoring requirements stated in this permit the source shall submit a Quarterly Compliance Monitoring Report. Any deviation from the requirements and the date(s) of each deviation must be reported. The Compliance Monitoring Report shall include the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

(b) The report required in (a) of this condition and reports required by conditions in Section D of this permit shall be submitted to:

Indiana Department of Environmental Management
Compliance Data Section, Office of Air Management
100 North Senate Avenue, P. O. Box 6015
Indianapolis, Indiana 46206-6015

Evansville Environmental Protection Agency
Room 250, Federal Building
101 N.W. Martin Luther King, Jr. Boulevard
Evansville, Indiana 47708-9998

(c) Unless otherwise specified in this permit, any notice, report, or other submission required by this permit shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAM, Evansville EPA on or before the date it is due.

(d) Unless otherwise specified in this permit, any quarterly report shall be submitted within thirty (30) days of the end of the reporting period. The report does not require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

(e) All instances of deviations must be clearly identified in such reports. A reportable deviation is an exceedance of a permit limitation or a failure to comply with a requirement of the permit or a rule. It does not include:

(1) An excursion from compliance monitoring parameters as identified in Section D of this permit unless tied to an applicable rule or limit; or

(2) A malfunction as described in 326 IAC 1-6-2; or

(3) Failure to implement elements of the Preventive Maintenance Plan unless lack of maintenance has caused or contributed to a deviation.

(4) Failure to make or record information required by the compliance monitoring provisions of Section D unless such failure exceeds 5% of the required data in any calendar quarter.

A Permittee's failure to take the appropriate response step when an excursion of a compliance monitoring parameter has occurred or failure to monitor or record the required compliance monitoring is a deviation.

(f) Any corrective actions or response steps taken as a result of each deviation must be clearly identified in such reports.

(g) The first report shall cover the period commencing on the date of issuance of this permit and ending on the last day of the reporting period.

C.20 Annual Notification [326 IAC 2-6.1-5(a)(5)]

(a) Annual notification shall be submitted to the Office of Air Management stating whether or not the source is in operation and in compliance with the terms and conditions contained in this permit.

(b) Noncompliance with any condition must be specifically identified. If there are any permit conditions or requirements for which the source is not in compliance at any time during the year, the Permittee must provide a narrative description of how the source did or will achieve compliance and the date compliance was, or will be, achieved. The notification must be signed by an authorized individual.

(c) The annual notice shall cover the time period from January 1 to December 31 of the previous year, and shall be submitted in the format attached no later than March 1 of each year to:

Compliance Data Section, Office of Air Management
Indiana Department of Environmental Management
100 North Senate Avenue, P.O. Box 6015
Indianapolis, IN 46206-6015

Evansville Environmental Protection Agency
Room 250, Federal Building
101 N.W. Martin Luther King, Jr. Boulevard
Evansville, Indiana 47708-9998

(d) The notification shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAM, Evansville EPA on or before the date it is due.

SECTION D.1 EMISSIONS UNIT OPERATION CONDITIONS

Emissions Unit Description:

(a) One (1) #2 fuel oil/natural gas-fired boiler, identified as BR#3, constructed in 1972, rated at 21.0 million British thermal units per hour, and exhausting to stack SV#2.

(The information describing the process contained in this emissions unit description box is descriptive information and does not constitute enforceable conditions.)

Emission Limitations

D.1.1 Particulate Matter (PM) [326 IAC 6-1-16]

(a) Pursuant to 326 IAC 6-1-16 (Vanderburgh County PM SIP Limits), natural gas usage for this boiler (BR#3) shall not exceed 152 million cubic feet (MMCF) per twelve (12) consecutive month period.

(b) Pursuant to 326 IAC 6-1-16 (Vanderburgh County PM SIP Limits), fuel oil usage for this boiler (BR#3) shall not exceed 1040 thousand gallons (kgals) per twelve (12) consecutive month period. For every gallon of fuel oil combusted, natural gas usage shall be reduced by 119 thousand cubic feet (MCF).

(c) These limitations are necessary to ensure the potential to emit PM from the boiler does not exceed 1.04 tons per year.

D.1.2 Particulate Matter (PM) [326 IAC 6-1-16]

Pursuant to 326 IAC 6-1-16 (Vanderburgh County PM SIP Limits), the PM emission rate from the boiler shall not exceed fourteen-hundredths (0.014) pound per million Btu heat input.

D.1.3 Sulfur Dioxide (SO_2) [326 IAC 7-1.1-1]

Pursuant to 326 IAC 7-1.1 (SO_2 Emissions Limitations), the SO_2 emissions from the boiler shall not exceed five-tenths (0.5) pound per million Btu heat input while combusting fuel oil.

D.1.4 Preventive Maintenance Plan [326 IAC 1-6-3]

A Preventive Maintenance Plan, in accordance with Section C - Preventive Maintenance Plan, of this permit, is required for this emissions unit and its control device.

Compliance Determination Requirements [326 IAC 2-1.1-11]

D.1.5 Testing Requirements [326 IAC 2-1.1-11]

The Permittee is not required to test this emissions unit by this permit. However, IDEM may require compliance testing when necessary to determine if the emissions unit is in compliance. If testing is required by IDEM, compliance with the PM and SO_2 limit specified in Condition D.1.2 and D.1.3 shall be determined by a performance test conducted in accordance with Section C - Performance Testing.

D.1.6 Sulfur Dioxide Emissions and Sulfur Content

Compliance with Condition D.2.3 shall be determined utilizing one of the following options:

(a) Pursuant to 326 IAC 3-7-4, the Permittee shall demonstrate that the fuel oil sulfur content does not exceed five-tenths percent (0.5%) by weight by:

(1) Providing vendor analysis of fuel delivered, if accompanied by a certification;

(2) Analyzing the oil sample to determine the sulfur content of the oil via the procedures in 40 CFR 60, Appendix A, Method 19.

(A) Oil samples may be collected from the fuel tank immediately after the fuel tank is filled and before any oil is combusted; and

(B) If a partially empty fuel tank is refilled, a new sample and analysis would be required upon filling; or

(b) Compliance may also be determined by conducting a stack test for sulfur dioxide emissions from the boiler using 40 CFR 60, Appendix A, Method 6 in accordance with the procedures in 326 IAC 3-6.

A determination of noncompliance pursuant to either of the methods specified in (a) or (b) above shall not be refuted by evidence of compliance pursuant to the other method.

Compliance Monitoring Requirements [326 IAC 2-5.1-3(e)(2)] [326 IAC 2-6.1-5(a)(2)]

D.1.7 Visible Emissions Notations

(a) Daily visible emission notations of the stack SV#2 exhaust shall be performed during normal daylight operations, when using fuel oil only, exhausting to the atmosphere. A trained employee shall record whether emissions are normal or abnormal.

(b) For processes operated continuously, "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time.

(c) In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions.

(d) A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process.

(e) The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when an abnormal emission is observed.

Record Keeping and Reporting Requirements [326 IAC 2-5.1-3(e)(2)] [326 IAC 2-6.1-5(a)(2)]

D.1.8 Record Keeping Requirements

(a) To document compliance with Condition D.1.1 and D.1.3, the Permittee shall maintain records in accordance with (1) through (6) below. Records maintained for (1) through (6) shall be taken monthly and shall be complete and sufficient to establish compliance with the PM limit established in D.1.1 and the SO_2 emission limit established in Condition D.1.3.

(1) Calendar dates covered in the compliance determination period;

(2) Actual natural gas and fuel oil usage since last compliance determination period;

(3) A certification, signed by the owner or operator, that the records of the fuel supplier certifications represent all of the fuel combusted during the period; and

If the fuel supplier certification is used to demonstrate compliance the following, as a minimum, shall be maintained:

(4) Fuel supplier certifications;

(5) The name of the fuel supplier; and

(6) A statement from the fuel supplier that certifies the sulfur content of the fuel oil.

(b) To document compliance with Condition D.1.7, the Permittee shall maintain records of daily visible emission notations of the boiler stack SV#2 exhaust while combusting fuel oil.

(c) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

D.1.9 Reporting Requirements

A summary of the information to document compliance with Condition D.1.1 and D.1.3 shall be submitted to the address listed in Section C - General Reporting Requirements, of this permit, using the reporting forms located at the end of this permit, or their equivalent, upon request.

D.1.10 Natural Gas Fired Boiler Certification

An annual certification shall be submitted to the address listed in Section C - General Reporting Requirements, of this permit, using the Natural Gas Fired Boiler Certification form located at the end of this permit, or its equivalent, no later than July 1 of each year.

SECTION D.2 EMISSIONS UNIT OPERATION CONDITIONS

Emissions Unit Description:

(b) One (1) #2 fuel oil/natural gas-fired boiler, identified as BR#2,rated at 20.9 million British thermal units per hour, and exhausting to stack SV#2.

(The information describing the process contained in this emissions unit description box is descriptive information and does not constitute enforceable conditions.)

Emission Limitations and Standards [326 IAC 2-6.1-5(1)]

D.2.1 Particulate Matter Limitation (PM) [326 IAC 6-2-4]

Pursuant to 326 IAC 6-2-4, the one (1) boiler, known as BR#2, constructed after September 21, 1983, shall not exceed 0.4127 pounds per million British thermal units is based on the following equation is given in 326 IAC 6-2-4:

$$Pt = 1.09/Q^{0.26}$$

where:

Pt = Pounds of particulate matter emitted per million British thermal units (lb/MMBtu) heat input

Q = Total source maximum operating capacity rating in million British thermal units per hour (MMBtu/hr) heat input (41.9). The maximum operating capacity rating is defined as the maximum capacity at which the facility is operated or the nameplate capacity, whichever is specified in the facility's permit application, except when some lower capacity is contained in the facility's operation permit; in which case, the capacity specified in the operation permit shall be used.

D.2.2 Sulfur Dioxide (SO_2) [326 IAC 12-1]

(a) Pursuant to (SO_2 Emissions Limitations) and 40 CFR 60, Subpart Dc (Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units):

(1) The SO_2 emissions from the 20.9 MMBtu per hour oil-fueled boiler shall not exceed five tenths (0.5) pounds per million Btu heat input; or

(2) The sulfur content of the fuel oil shall not exceed five-tenths percent (0.5%) by weight. [40 CFR 60.42c(d)]

(b) Pursuant to 40 CFR 60 Subpart Dc, the fuel oil sulfur content limit applies at all times, including periods of startup, shutdown, and malfunction.

D.2.3 Preventive Maintenance Plan [326 IAC 1-6-3]

A Preventive Maintenance Plan, in accordance with Section C - Preventive Maintenance Plan, of this permit, is required for this emissions unit and its control device.

Compliance Determination Requirements [326 IAC 2-1.1-11]

D.2.4 Testing Requirements [326 IAC 2-1.1-11]

The Permittee is not required to test this emissions unit by this permit. However, IDEM may require compliance testing when necessary to determine if the emissions unit is in compliance. If testing is required by IDEM, compliance with the PM and SO_2 limits specified in Conditions D.2.1 and D.2.2

shall be determined by a performance test conducted in accordance with Section C - Performance Testing.

D.2.5 Sulfur Dioxide Emissions and Sulfur Content

Pursuant to 40 CFR 60, Subpart Dc, the Permittee shall demonstrate compliance utilizing one of the following options when operating on fuel oil:

(a) Providing vendor analysis of fuel delivered, if accompanied by a certification; or

(b) Analyzing the oil sample to determine the sulfur content of the oil via the procedures in 40 CFR 60, Appendix A, Method 19.

(1) Oil samples may be collected from the fuel tank immediately after the fuel tank is filled and before any oil is combusted; and

(2) If a partially empty fuel tank is refilled, a new sample and analysis would be required upon filling.

Compliance Monitoring Requirements [326 IAC 2-5.1-3(e)(2)] [326 IAC 2-6.1-5(a)(2)]

D.2.6 Visible Emissions Notations

(a) Daily visible emission notations of the stack SV#2 exhaust shall be performed during normal daylight operations when, using fuel oil only, exhausting to the atmosphere. A trained employee shall record whether emissions are normal or abnormal.

(b) For processes operated continuously, "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time.

(c) In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions.

(d) A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process.

(e) The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when an abnormal emission is observed.

Record Keeping and Reporting Requirements [326 IAC 2-5.1-3(e)(2)] [326 IAC 2-6.1-5(a)(2)]

D.2.7 Record Keeping Requirements

(a) To document compliance with Condition D.2.2, the Permittee shall maintain records in accordance with (1) through (6) below. Note that pursuant to 40 CFR 60 Subpart Dc, the fuel oil sulfur limit applies at all times including periods of startup, shutdown, and malfunction.

(1) Calendar dates covered in the compliance determination period;

(2) Actual fuel oil usage since last compliance determination period and equivalent sulfur dioxide emissions;

(3) A certification, signed by the owner or operator, that the records of the fuel supplier

certifications represent all of the fuel combusted during the period; and

If the fuel supplier certification is used to demonstrate compliance the following, as a minimum, shall be maintained:

(4) Fuel supplier certifications;

(5) The name of the fuel supplier; and

(6) A statement from the fuel supplier that certifies the sulfur content of the fuel oil.

The Permittee shall retain records of all recording/monitoring data and support information for a period of five (5) years, or longer if specified elsewhere in this permit, from the date of the monitoring sample, measurement, or report. Support information includes all calibration and maintenance records and all original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by this permit.

(b) To document compliance with Condition D.2.6, the Permittee shall maintain records of daily visible emission notations of the stack SV#2 exhaust.

(c) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

D.2.8 Reporting Requirements

A summary of the information to document compliance with Condition D.2.2 shall be submitted to the address listed in Section C - General Reporting Requirements, of this permit, using the reporting forms located at the end of this permit, or their equivalent, upon request.

D.2.9 Natural Gas Fired Boiler Certification

An annual certification shall be submitted to the address listed in Section C - General Reporting Requirements, of this permit, using the Natural Gas Fired Boiler Certification form located at the end of this permit, or its equivalent, no later than July 1 of each year.

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR MANAGEMENT
COMPLIANCE DATA SECTION
and
EVANSVILLE ENVIRONMENTAL PROTECTION AGENCY

Minor Source Operating Permit
NATURAL GAS-FIRED BOILER CERTIFICATION

Source Name: Evansville State Hospital
Source Address: 3400 Lincoln Avenue, Evansville, IN 47715
Mailing Address: 3400 Lincoln Avenue, Evansville, IN 47715
MSOP No.: 163-11909-00005

This certification shall be included when submitting monitoring, testing reports/results or other documents as required by this permit.

Report period
Beginning: _____
Ending: _____

Boiler Affected	Alternate Fuel	Days burning alternate fuel From	To
BR#2			
BR#3			

I certify that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.

Signature:

Printed Name:

Title/Position:

Date:

Phone:

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR MANAGEMENT
COMPLIANCE DATA SECTION and
EVANSVILLE ENVIRONMENTAL PROTECTION AGENCY

MSOP Fuel Oil Report

Source Name: Evansville State Hospital
Source Address: 3400 Lincoln Avenue, Evansville, IN 47715
Mailing Address: 3400 Lincoln Avenue, Evansville, IN 47715
MSOP Permit No.: 163-11909-00005
Facility: Boiler (BR#3)
Parameter: SO_2 and Fuel Oil Consumed
Limit: 0.5 lbs/MMBtu for SO_2 and 1,040 gallons of fuel oil per twelve (12) consecutive month period

Quarter: _____ Year: _____

Month	Fuel Oil Usage (gallons)	Monthly Average Sulfur Content (%)	Monthly Average Heat Content (MMBtu/lb)	Sulfur Dioxide Emission Rate (lbs/MMBtu)
Number of Deviations				

9 No deviation occurred in this month.

9 Deviation/s occurred in this month.
Deviation has been reported on: _____

Submitted by: _____

Title/Position: _____

Signature: _____

Date: _____

Phone: _____

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR MANAGEMENT
COMPLIANCE DATA SECTION and
EVANSVILLE ENVIRONMENTAL PROTECTION AGENCY

MSOP SO_2 Report

Source Name: Evansville State Hospital
Source Address: 3400 Lincoln Avenue, Evansville, IN 47715
Mailing Address: 3400 Lincoln Avenue, Evansville, IN 47715
MSOP Permit No.: 163-11909-00005
Facility: Boiler (BR#2)
Parameter: SO_2
Limit: 0.5 lbs/MMBtu for SO_2

Quarter: _____ Year: _____

Month	Monthly Average Sulfur Content (%)	Monthly Average Heat Content (MMBtu/lb)	Sulfur Dioxide Emission Rate (lbs/MMBtu)
Number of Deviations			

9 No deviation occurred in this month.

9 Deviation/s occurred in this month.
Deviation has been reported on: _____

Submitted by: _____

Title/Position: _____

Signature: _____

Date: _____

Phone: _____

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR MANAGEMENT
COMPLIANCE DATA SECTION and
EVANSVILLE ENVIRONMENTAL PROTECTION AGENCY

MSOP Natural Gas Usage Form

Company Name: Evansville State Hospital
Location: 3400 Lincoln Avenue, Evansville, Indiana 47714
Permit No.: MSOP 163-11909-00005
Source/Facility: Boiler BR#3
Parameter: PM
Limit: 152 MMCF of Natural Gas per twelve (12) consecutive month period

Quarter: _____ Year:_____

Month	Natural Gas Consumed (MMCF)	Natural Gas Consumed (MMCF)	Natural Gas Consumed (MMCF)
	This Month	Previous 11 Months	12 Month Total

Submitted by: _____

Title/Position: _____

Signature: _____

Date: _____

MALFUNCTION REPORT

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR MANAGEMENT
FAX NUMBER - 317 233-5967

This form should only be used to report malfunctions applicable to Rule 326 IAC 1-6 and to qualify for the exemption under 326 IAC 1-6-4.

THIS FACILITY MEETS THE APPLICABILITY REQUIREMENTS BECAUSE IT HAS POTENTIAL TO EMIT 25 TONS/YEAR PARTICULATE MATTER ?_____, 25 TONS/YEAR SULFUR DIOXIDE ?_____, 25 TONS/YEAR NITROGEN OXIDES ?_____, 25 TONS/YEAR VOC ?_____, 25 TONS/YEAR HYDROGEN SULFIDE ?_____, 25 TONS/YEAR TOTAL REDUCED SULFUR ?_____, 25 TONS/YEAR REDUCED SULFUR COMPOUNDS ?_____, 25 TONS/YEAR FLUORIDES ?_____, 100 TONS/YEAR CARBON MONOXIDE ?_____, 10 TONS/YEAR ANY SINGLE HAZARDOUS AIR POLLUTANT ?_____, 25 TONS/YEAR ANY COMBINATION HAZARDOUS AIR POLLUTANT ?_____, 1 TON/YEAR LEAD OR LEAD COMPOUNDS MEASURED AS ELEMENTAL LEAD ?_____, OR IS A SOURCE LISTED UNDER 326 IAC 2-5.1-3(2) ?_____. EMISSIONS FROM MALFUNCTIONING CONTROL EQUIPMENT OR PROCESS EQUIPMENT CAUSED EMISSIONS IN EXCESS OF APPLICABLE LIMITATION _____.

THIS MALFUNCTION RESULTED IN A VIOLATION OF: 326 IAC _____ OR, PERMIT CONDITION # _____ AND/OR PERMIT LIMIT OF _____

THIS INCIDENT MEETS THE DEFINITION OF 'MALFUNCTION' AS LISTED ON REVERSE SIDE ? Y N

THIS MALFUNCTION IS OR WILL BE LONGER THAN THE ONE (1) HOUR REPORTING REQUIREMENT ? Y N

COMPANY: _____ PHONE NO. :_____
LOCATION: (CITY AND COUNTY) _____
PERMIT NO. _____ AFS PLANT ID: _____ AFS POINT ID: _____ INSP: _____
CONTROL/PROCESS DEVICE WHICH MALFUNCTIONED AND REASON: _____

DATE/TIME MALFUNCTION STARTED: _____/_____/ 20_____ _____ AM / PM

ESTIMATED HOURS OF OPERATION WITH MALFUNCTION CONDITION: _____

DATE/TIME CONTROL EQUIPMENT BACK-IN SERVICE_____/_____/ 20____ _____ AM / PM

TYPE OF POLLUTANTS EMITTED: TSP, PM-10, SO2, VOC, OTHER: _____

ESTIMATED AMOUNT OF POLLUTANT EMITTED DURING MALFUNCTION: _____

MEASURES TAKEN TO MINIMIZE EMISSIONS: _____

REASONS WHY FACILITY CANNOT BE SHUTDOWN DURING REPAIRS:

CONTINUED OPERATION REQUIRED TO PROVIDE ESSENTIAL* SERVICES: _____
CONTINUED OPERATION NECESSARY TO PREVENT INJURY TO PERSONS: _____
CONTINUED OPERATION NECESSARY TO PREVENT SEVERE DAMAGE TO EQUIPMENT: _____
INTERIM CONTROL MEASURES: (IF APPLICABLE) _____

MALFUNCTION REPORTED BY: _____ TITLE: _____
(SIGNATURE IF FAXED)

MALFUNCTION RECORDED BY: _____ DATE: _____ TIME: _____

*SEE PAGE 2

Please note - This form should only be used to report malfunctions applicable to Rule 326 IAC 1-6 and to qualify for the exemption under 326 IAC 1-6-4.

326 IAC 1-6-1 Applicability of rule

Sec. 1. This rule applies to the owner or operator of any facility required to obtain a permit under 326 IAC 2-5.1 or 326 IAC 2-6.1.

326 IAC 1-2-39 "Malfunction" definition

Sec. 39. Any sudden, unavoidable failure of any air pollution control equipment, process, or combustion or process equipment to operate in a normal and usual manner.

*** Essential services** are interpreted to mean those operations, such as, the providing of electricity by power plants. Continued operation solely for the economic benefit of the owner or operator shall not be sufficient reason why a facility cannot be shutdown during a control equipment shutdown.

If this item is checked on the front, please explain rationale:

_____

_____

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR MANAGEMENT
COMPLIANCE DATA SECTION
and EVANSVILLE ENVIRONMENTAL PROTECTION AGENCY

MINOR SOURCE OPERATING PERMIT
ANNUAL NOTIFICATION

This form should be used to comply with the notification requirements under 326 IAC 2-6.1-5(a)(5).

Company Name:	**Evansville State Hospital**
Address:	**3400 Lincoln Avenue**
City:	**Evansville, Indiana 47714**
Phone #:	**812-473-2377**
MSOP #:	**163-11909-00005**

I hereby certify that Evansville State Hospital is **9** still in operation.
9 no longer in operation.

I hereby certify that Evansville State Hospital is
9 in compliance with the requirements of MSOP **163-11909-00005**.
9 not in compliance with the requirements of MSOP **163-11909-00005**.

Authorized Individual (typed):
Title:
Signature:
Date:

If there are any conditions or requirements for which the source is not in compliance, provide a narrative description of how the source did or will achieve compliance and the date compliance was, or will be achieved.

Noncompliance:

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR MANAGEMENT
COMPLIANCE DATA SECTION
and EVANSVILLE ENVIRONMENTAL PROTECTION AGENCY

Minor Source Operating Permit
QUARTERLY COMPLIANCE MONITORING REPORT

Source Name: Evansville State Hospital
Source Address: 3400 Lincoln avenue, Evansville, Indiana 47714
Mailing Address: 3400 Lincoln avenue, Evansville, Indiana 47714
MSOP Permit No.: 163-11909-00005

Months: _____ to _____ Year: _____

This report is an affirmation that the source has met all the compliance monitoring requirements stated in this permit. This report shall be submitted quarterly. Any deviation from the compliance monitoring requirements and the date(s) of each deviation must be reported. Additional pages may be attached if necessary. This form can be supplemented by attaching the Emergency/Deviation Occurrence Report. If no deviations occurred, please specify in the box marked "No deviations occurred this reporting period".

9 NO DEVIATIONS OCCURRED THIS REPORTING PERIOD.

9 THE FOLLOWING DEVIATIONS OCCURRED THIS REPORTING PERIOD.

Compliance Monitoring Requirement (e.g. Permit Condition D.1.3)	Number of Deviations	Date of each Deviation

Form Completed By: _____

Title/Position: _____

Date: _____

Phone: _____

Attach a signed certification to complete this report.

Indiana Department of Environmental Management
Office of Air Management and
City of Evansville Environmental Protection Agency

Technical Support Document (TSD) for a
Minor Source Operating Permit

Source Background and Description

Source Name:	**Evansville State Hospital**
Source Location:	**3400 Lincoln Avenue, Evansville, Indiana 47714**
County:	**Vanderburgh**
SIC Code:	**8062**
Operation Permit No.:	**MSOP 163-11909-00005**
Permit Reviewer:	**Paula M. Miano**

The Office of Air Management (OAM) has reviewed an application from Evansville State Hospital relating to the construction and operation of a boiler.

History

Evansville State Hospital is currently operating under T 163-7724-00005. The source will be removing two (2) coal-fired boilers, known as BR#1 and BR#2 and installing a #2 fuel oil/natural gas-fired boiler. Due to this removal, this source will no longer be subject to the Title V program and qualifies for a Minor Source Operating Permit; therefore, this is a transition from a Part 70 permit to a MSOP with new construction.

Permitted Emission Units and Pollution Control Equipment

The source consists of the following permitted emission units and pollution control devices:

(a) One (1) #2 fuel oil/natural gas-fired boiler, identified as BR#3, constructed in 1972, rated at 21.0 million British thermal units per hour, and exhausting to stack SV#2.

The following boilers will be removed from service when the new boiler is installed:

(a) One (1) coal-fired boiler, identified as BR#1, constructed in 1980, rated at 38.6 million British thermal units per hour, and exhausting to stack SV#1; and

(b) One (1) coal-fired boiler, identified as BR#2, constructed in 1986, rated at 38.6 million British thermal units per hour, and exhausting to stack SV#1.

Unpermitted Emission Units and Pollution Control Equipment

There are no unpermitted facilities operating at this source during this review process.

New Emission Units and Pollution Control Equipment

The application includes information relating to the construction and operation of the following equipment:

(b) One (1) #2 fuel oil/natural gas-fired boiler, identified as BR#2,rated at 20.9 million British thermal units per hour, and exhausting to stack SV#2.

(c) One (1) storage tank, known as T1,capacity: 10,000 gallons.

(d) One (1) storage tank, known as T2, capacity: 500 gallons.

Existing Approvals

The source has been operating under previous approvals including, but not limited to, the following:

(a) T 163-7724-00005, issued on November 6, 1998;

(b) Evansville EPA Operating Permit 005-001-001, issued on February 26, 1992;

(c) Evansville EPA Operating Permit 005-001-003, issued on February 26, 1992; and

(d) Evansville EPA Operating Permit 005-001-005, issued on February 26, 1992.

All conditions from T 163-7724-00005 that refer to 326 IAC 2-7 have not been incorporated into this permit. 326 IAC 2-7 refers to a Part 70 Operating Permit which this source will no longer be subject to once this MSOP is issued. All conditions pertaining to BR#3 remain and have been carried over to the MSOP..

Stack Summary

Stack ID	Operation	Height (feet)	Diameter (feet)	Flow Rate (acfm)	Temperature (EF)
SV2	Boilers	52.0	2.0	6842	405

Enforcement Issue

There are no enforcement actions pending.

Recommendation

The staff recommends to the Commissioner that the construction and operation be approved. This recommendation is based on the following facts and conditions:

Unless otherwise stated, information used in this review was derived from the application and additional information submitted by the applicant.

An application for the purposes of this review was received on February 21, 2000, with additional information received on April 5 and 13, 2000.

Emission Calculations

See Appendix A pages 1 through 4 of 4 of this document for detailed emissions calculations.

Potential To Emit

Pursuant to 326 IAC 2-1.1-1(16), Potential to Emit is defined as "the maximum capacity of a stationary source or emissions unit to emit any air pollutant under its physical and operational design. Any physical or operational limitation on the capacity of a source to emit an air pollutant, including air pollution control equipment and restrictions on hours of operation or type or amount of material combusted, stored, or processed shall be treated as part of its design if the limitation is enforceable by the U. S. EPA, the department, or the appropriate local air pollution control agency."

Pollutant	**Potential To Emit** (tons/year)
PM	2.62
PM_{10}	2.62
SO_2	93.1
VOC	1.01
CO	15.4
NO_X	26.2

HAPs	**Potential To Emit** (tons/year)
Benzene	0.0002
Dichlorobenzene	0.0001
Formaldehyde	0.0069
Hexane	0.1648
Toluene	0.0003
Arsenic	0.0007
Beryllium	0.000006
Cadmium	0.000006
Chromium	0.000006
Lead	0.0017
Mercury	0.000006
Manganese	0.0011
Nickel	0.000006
Selenium	0.0028
TOTAL	0.179

(a) The potential to emit (as defined in 326 IAC 2-1.1-1(16)) of SO_2 and NO_X are equal to or greater than 25 tons per year. Therefore, the source is subject to the provisions of 326 IAC 2-6.1.

(b) Fugitive Emissions
Since this type of operation is not one of the twenty-eight (28) listed source categories under 326 IAC 2-2 and since there are no applicable New Source Performance Standards that were in effect on August 7, 1980, the fugitive particulate matter (PM) and volatile organic compound (VOC) emissions are not counted toward determination of PSD and Emission Offset applicability.

Actual Emissions

The following table shows the actual emissions from the source. This information reflects the 1998 OAM emission data when the source was still a Title V source.

Pollutant	**Actual Emissions** (tons/year)
PM	50.4
PM_{10}	10.1
SO_2	236
VOC	0.251
CO	14.1
NO_X	39.5
HAP	n/a

Limited Potential to Emit - Entire Source

The table below summarizes the total potential to emit, reflecting all limits, of the significant emission units at the source.

	Limited Potential to Emit (tons/year)						
Process/facility	PM	PM_{10}	SO_2	VOC	CO	NO_X	HAPS
BR#3	1.04	1.04	36.9	0.503	7.69	10.4	0.0875
BR#2 (New)	1.31	1.31	46.5	0.506	7.73	13.1	0.0875
Total Emissions	2.35	2.35	93.1	1.01	15.4	26.2	0.179

Note: The emissions from BR#3 reflect the PM limit of 1.04 ton per year pursuant to 326 IAC 6-1-16 and the worst case fuel oil and/or natural gas combustion.

County Attainment Status

The source is located in Vanderburgh County.

Pollutant	Status
PM_{10}	attainment
SO_2	attainment
NO_2	attainment
Ozone	maintenance
CO	attainment
Lead	attainment

Volatile organic compounds (VOC) and oxides of nitrogen (NO_X) are precursors for the formation of ozone. Therefore, VOC emissions are considered when evaluating the rule applicability relating to the ozone standards. Vanderburgh County has been designated as maintenance for ozone. Therefore, VOC and NO_X emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2 and 40 CFR 52.21.

Source Status

Existing Source PSD, Part 70 or FESOP Definition (emissions after controls, based on 8,760 hours of operation per year at rated capacity and/ or as otherwise limited):

Pollutant	Emissions (ton/yr)
PM	greater than 100, less than 250
PM_{10}	less than 100
SO_2	greater than 250
VOC	less than 100
CO	less than 100
NO_X	greater than 100, less than 250

(a) This existing source is a major stationary source because at least one regulated attainment pollutant is emitted at a rate of 250 tons per year or greater. This new source is not one of the 28 listed source categories. Therefore, pursuant to 326 IAC 2-2, and 40 CFR 52.21, the PSD requirements apply.

(b) These emissions were based on information from the TSD for T 163-7724-00005.

(c) The source will be removing two (2) coal-fired boilers, known as BR#1 and BR#2 and installing a #2 fuel oil/natural gas-fired boiler. Due to this removal, this source will no longer be subject to the Title V program and qualifies for a Minor Source Operating Permit; therefore, this is a transition from a Part 70 permit to a MSOP with new construction.

Part 70 Permit Determination

326 IAC 2-7 (Part 70 Permit Program)

Upon issuance of this approval, this existing source will no longer be subject to the Part 70 Permit requirements because the potential to emit (PTE) of:

(a) each criteria pollutant is less than 100 tons per year,

(b) a single hazardous air pollutant (HAP) is less than 10 tons per year, and

(c) any combination of HAPS is less than 25 tons/year.

This status is based on all the air approvals issued to the source and the proposed modification. This status has been verified by the OAM inspector assigned to the source.

Federal Rule Applicability

(a) The one (1) #2 fuel oil/natural gas-fired boiler, known as BR#3 is not subject to the requirements of the New Source Performance Standard, 326 IAC 12, 40 CFR 60.40, 40 CFR 60.40a, 40 CFR 60.40b and 40 CFR 60.40c, Subparts D, Da, Db and Dc because it was installed prior to September 18,1978 and has a capacity less than 250 million British thermal units per hour.

(b) The proposed #2 fuel oil/natural gas-fired boiler, known as BR#2, is subject to the New Source Performance Standard, 326 IAC 12, (40 CFR 60.40c, Subpart Dc because it is was installed after the June 9, 1989 applicability date and is rated between 10 and 100 million British thermal units per hour. When the boiler operates on natural gas, there are no applicable standards under 40 CFR 60.42c. When the boiler operates on fuel oil, the SO_2 emissions shall not exceed five tenths (0.5) pounds per million Btu heat input, or the sulfur content of the fuel oil shall not exceed five-tenths percent (0.5%) by weight.

(c) The two (2) storage tanks, T1 and T2, are not subject to the requirements of the New Source Performance Standard, 326 IAC 12, (40 CFR 60.110, 60.110a and 60.110b), Subparts K, Ka, and Kb, because both tanks have a capacity less than 40 cubic meters.

(d) There are no National Emission Standards for Hazardous Air Pollutants (NESHAPs)(326 IAC 14 and 40 CFR art 63) applicable to this source.

State Rule Applicability - Entire Source

326 IAC 2-2 (Prevention of Significant Deterioration)

Upon issuance of this approval the source will be considered a minor source pursuant to 326 IAC 2-2 due to the removal of the two (2) coal-fired boilers. The potential to emit of all criteria pollutants will be less than 250 tons per year.

326 IAC 2-6 (Emission Reporting)

This source is subject to 326 IAC 2-6 (Emission Reporting), because it has the potential to emit more than ten (10) tons per year of NO_X in Vanderburgh County. Pursuant to this rule, the owner/operator of the source must annually submit an emission statement for the source. The annual statement must be received by April 15 of each year and contain the minimum requirement as

specified in 326 IAC 2-6-4. The submittal should cover the period defined in 326 IAC 2-6-2(8) (Emission Statement Operating Year).

326 IAC 5-1 (Opacity Limitations)

Pursuant to 326 IAC 5-1-2 (Opacity Limitations), except as provided in 326 IAC 5-1-3 (Temporary alternative opacity limitations), opacity shall meet the following, unless otherwise stated in this permit:

(a) Opacity shall not exceed an average of forty percent (40%) any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.

(b) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of fifteen (15) minutes (sixty (60) readings as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor) in a six (6) hour period.

State Rule Applicability - Individual Facilities

326 IAC 6-1-16 (Vanderburgh County PM SIP Limits)

(a) Pursuant to 326 IAC 6-1-16 (Vanderburgh County PM SIP Limits), the particulate matter (PM) from Boiler BR#3 shall not exceed 1.04 tons per year. In addition, the boiler shall not exceed a PM emission rate of 0.014 pounds per MMBtu. The calculations performed demonstrate that the boiler can comply with both of the limits at its maximum capacity.

(b) The rules of 326 IAC 6-1-1 are not applicable to the proposed boiler BR#2 rated at 20.9 million British thermal units per hour. It is not listed in section 7 of this rule and because it does not have the potential to emit 100 tons of PM per year or actual emissions of ten (10) tons per year.

326 IAC 6-2-4 (Particulate Emissions Limitations for Facilities Constructed after September 21, 1983)

The one (1) boiler, known as BR#2, constructed after September 21, 1983, must comply with the requirements of 326 IAC 6-2-4. The emission limitations are based on the following equation given in 326 IAC 6-2-4:

$$Pt = 1.09/Q^{0.26}$$

where:

Pt = Pounds of particulate matter emitted per million British thermal units (lb/MMBtu) heat input

Q = Total source maximum operating capacity rating in million British thermal units per hour (MMBtu/hr) heat input. The maximum operating capacity rating is defined as the maximum capacity at which the facility is operated or the nameplate capacity, whichever is specified in the facility's permit application, except when some lower capacity is contained in the facility's operation permit; in which case, the capacity specified in the operation permit shall be used.

For the one (1) boiler, known as BR#2:
The heat input capacity of the one (1) boiler is 20.9 million British thermal units per hour. There is one (1) boiler rated at 21.0 million British thermal units per hour in operation when this boilers was constructed.

$Pt = 1.09/(40.9)^{0.26} = 0.4127$ lb/MMBtu heat input

Based on Appendix A, the potential PM emission rate is:

2.62 ton/yr × (2000 lbs/ton / 8760 hrs/yr) = 0.5982 lb/hr
(0.5982 lb/hr / 20.9 MMBtu/hr) = 0.0286 lb PM per MMBtu

Therefore, the one (1) boiler, BR#2 will comply with this rule.

326 IAC 7-1.1 (Sulfur Dioxide Emission Limitations)

Pursuant to 326 IAC 7-1.1 (Sulfur Dioxide Emission Limitations), the sulfur dioxide (SO_2) emissions, when operating on fuel oil, from BR#2 and BR#3 shall be limited to 0.5 pounds of SO_2 per million Btu heat input.

Air Toxic Emissions

Indiana presently requests applicants to provide information on emissions of the 188 hazardous air pollutants (HAPs) set out in the Clean Air Act Amendments of 1990. These pollutants are either carcinogenic or otherwise considered toxic and are commonly used by industries. They are listed as air toxics on the Office of Air Management (OAM) Construction Permit Application Form Y.

(a) This source will emit levels of air toxics less than those which constitute a major source according to Section 112 of the 1990 Clean Air Act Amendments.

(b) See attached calculations page 2 and 4 of Appendix A for detailed air toxic calculations.

Conclusion

The construction and operation of this BR#2 and operation of BR#3 shall be subject to the conditions of the attached proposed New Source Construction and Minor Source Operating Permit 163-11909-00005 and supersedes T 163-7724-00005 issued on November 6, 1998.

Appendix A: Emissions Calculations
Natural Gas Combustion Only
MM BTU/HR <100
Small Industrial Boiler

Company Name: **Evansville State Hospital**
Address City IN Zip: **3400 Lincoln Ave, Evansville, Indiana 47714**
MSOP: **163-11909**
Plt ID: **163-00005**
Reviewer: **Paula M. Miano**
Date: **February 14, 2000**

Heat Input Capacity MMBtu/hr		Potential Throughput MMCF/yr
20.90	New Boiler BR#2	183.08
21.00	Existing Boiler BR#3	183.96

	Pollutant					
	PM*	PM10*	SO2	NOx	VOC	CO
Emission Factor in lb/MMCF	1.9	7.6	0.6	50.0 100.0 **see below	5.5	84.0
Potential Emission in tons/yr						
New Boiler BR#2	0.174	0.696	0.055	4.58	0.503	7.69
Existing Boiler BR#3	0.175	0.699	0.055	9.20	0.506	7.73
Total	**0.349**	**1.39**	**0.110**	**13.8**	**1.01**	**15.4**

*PM emission factor is filterable PM only. PM10 emission factor is filterable and condensable PM10 combined.
**Emission Factors for NOx: Uncontrolled = 100, Low NOx Burner = 50, Low NOx Burners/Flue gas recirculation = 32

Methodology

All emission factors are based on normal firing.
MMBtu = 1,000,000 Btu
MMCF = 1,000,000 Cubic Feet of Gas

Potential Throughput (MMCF) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1 MMCF/1,000 MMBtu
Emission Factors are from AP 42, Chapter 1.4, Tables 1.4-1, 1.4-2, 1.4-3, SCC #1-02-006-02, 1-01-006-02, 1-03-006-02, and 1-03-006-03 (SUPPLEMENT D 3/98)
Emission (tons/yr) = Throughput (MMCF/yr) x Emission Factor (lb/MMCF)/2,000 lb/ton
Note: Check the applicable rules and test methods for PM and PM10 when using the above emission factors to confirm that the correct factor is used (i.e., condensable included/not included).
See page 2 for HAPs emissions calculations.

Appendix A: Emissions Calculations
Natural Gas Combustion Only
MM BTU/HR <100
Small Industrial Boiler
HAPs Emissions

Company Name: Evansville State Hospital
Address City IN Zip: 3400 Lincoln Ave, Evansville, Indiana 47714
MSOP: 163-11909
Plt ID: 163-00005
Reviewer: Paula M. Miano
Date: February 14, 2000

HAPs - Organics

Emission Factor in lb/MMcf	Benzene 2.1E-03	Dichlorobenzene 1.2E-03	Formaldehyde 7.5E-02	Hexane 1.8E+00	Toluene 3.4E-03
Potential Emission in tons/yr	1.922E-04	1.099E-04	6.866E-03	1.648E-01	3.112E-04

HAPs - Metals

Emission Factor in lb/MMcf	Lead 5.0E-04	Cadmium 1.1E-03	Chromium 1.4E-03	Manganese 3.8E-04	Nickel 2.1E-03
Potential Emission in tons/yr	4.577E-05	1.007E-04	1.282E-04	3.479E-05	1.922E-04

Methodology is the same as page 1.

The five highest organic and metal HAPs emission factors are provided above.
Additional HAPs emission factors are available in AP-42, Chapter 1.4.

Appendix A: Emissions Calculations
Commercial/Institutional/Residential Combustors (< 100 mmBtu/hr)
#1 and #2 Fuel Oil

Company Name: **Evansville State Hospital**
Address, City IN Zip: **3400 Lincoln Ave, Evansville, Indiana 47714**
CP: **163-11909**
Plt ID: **163-00005**
Reviewer: **Paula M. Miano**
Date: **February 14, 2000**

Existing Boiler #3 rated at 21.0 MMBtu/hr
New Boiler rated at 20.9 MMBtu/hr

Heat Input Capacity MMBtu/hr		Potential Throughput kgals/year	S = Weight % Sulfur
			0.5
20.9	New Boiler BR#2	1307.74286	
21	Existing Boiler BR#3	1314	

	Pollutant				
	PM*	SO2	NOx	VOC	CO
Emission Factor in lb/kgal	2.0	71 *(142.0S)*	20.0	0.34	5.0
Potential Emission in tons/yr					
New Boiler BR#2	1.31	46.4	13.1	0.222	3.27
Existing Boiler BR#3	1.31	46.6	13.1	0.223	3.29
Total	**2.62**	**93.1**	**26.2**	**0.446**	**6.55**

Methodology

1 gallon of No. 2 Fuel Oil has a heating value of 140,000 Btu

Potential Throughput (kgals/year) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1kgal per 1000 gallon x 1 gal per 0.140 MM B
Emission Factors are from AP 42, Tables 1.3-1, 1.3-2, and 1.3-3 (SCC 1-03-005-01/02/03) Supplement E 9/98 (see erata file)
*PM emission factor is filterable PM only. Condensable PM emission factor is 1.3 lb/kgal.
Emission (tons/yr) = Throughput (kgals/ yr) x Emission Factor (lb/kgal)/2,000 lb/ton
Note: Check the applicable rules and test methods for PM and PM10 when using the above emission factors to confirm that the correct factor is used (i.e., condensable included/not included).

See page 2 for HAPs emission calculations.

Appendix A: Emissions Calculations
Commercial/Institutional/Residential Combustors (< 100 mmBtu/hr)
#1 and #2 Fuel Oil
HAPs Emissions

Company Name: **Evansville State Hospital**
Address, City IN Zip: **3400 Lincoln Ave, Evansville, Indiana 47714**
MSOP: **163-11909**
Plt ID: **163-00005**
Reviewer: **Paula M. Miano**
Date: **February 14, 2000**

HAPs - Metals

	Arsenic	Beryllium	Cadmium	Chromium	Lead
Emission Factor in lb/mmBtu	4.0E-06	3.0E-06	3.0E-06	3.0E-06	9.0E-06
Potential Emission in tons/yr	3.66E-04	2.75E-04	2.75E-04	2.75E-04	8.24E-04

HAPs - Metals (continued)

	Mercury	Manganese	Nickel	Selenium
Emission Factor in lb/mmBtu	3.0E-06	6.0E-06	3.0E-06	1.5E-05
Potential Emission in tons/yr	2.75E-04	5.49E-04	2.75E-04	1.37E-03

Methodology

No data was available in AP-42 for organic HAPs.
Potential Emissions (tons/year) = Throughput (mmBtu/hr)*Emission Factor (lb/mmBtu)*8,760 hrs/yr / 2,000 lb/ton

Appendix A: Average Actual Emissions Calculations
Industrial Boilers (BR#1 and BR#2)
Bituminous Coal Combustion
Overfeed Stoker with Traveling Grate

Company Name: Evansville State Hospital
Address, City IN Zip: 3400 Lincoln Avenue, Evanville, IN 47715
MSOP: 163-11909
Plt ID: 163-00005
Reviewer: Paula Miano
Date: February 21, 2000

Average Actual Emissions
BR#1 and BR#2 (old)

Potential Throughput tons/year	Maximum Allowable Sulfur Content (S) Weight %
184.00	3.47

	Pollutant					
	PM	PM10	SO2	NOx	VOC	CO
Emission Factor in lb/ton	16.0	6.0	131.9 *(38S)*	7.5	0.05	6.0
Potential Emissions in tons/yr	1.47	0.552	12.1	0.690	0.005	0.552

Methodology

The maximum allowable sulfur content is based on 326 IAC 7-1.1-1 limit of 6.0 pounds per MMBtu.

Potential Throughput (tons/year) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr / 2000 lbs/ton / 0.013 MMBtu/lb

Emission Factors are from AP 42, Tables 1.1-3, 1.1-4, and 1.1-18 (SCC 1-01-002-05/25, 1-02-002-05/25, and 1-03-002-07/25)

Emission (tons/yr) = Throughput (tons/ yr) x Emission Factor (lb/ton) / 2,000 lb/ton